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ABSTRACT

This study analyzes statistics of 17 public services units of the University of Colorado at Boulder libraries, measuring frequency of question-asking, types of questions and staff responsibility. The study seeks to determine fluctuations of reference service workloads over time, department staffing and training needs, and to provide supervisors with a quantifiable understanding of reference activities. Over 500,000 transactions occurred in 1975-1976, suggesting successful marketing of services. Volumes of directional and circulation questions indicate a need for directional signs and for examination of circulation procedures in some departments. The success of user education programs is reflected in a high volume of instructional and research questions. Students and support staff handle large numbers of questions with students answering all types, indicating a need to examine staffing patterns. Public service librarians recommend: (1) establishing a training program for students and a higher job level for students working weekends and evenings; (2) creating half time graduate assistantships with subject expertise for reference services on weekends and evenings; and (3) converting several student positions to a full-time staff position. Question recording forms and question type definitions are appended. (KP)

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REFERENCE STATISTICS

1975-1976

AN ANALYSIS AND RECOMMENDATIONS

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April 28, 1977

IR 004 119

This study analyzes the reference statistics kept by 17 Public Services units of the Libraries on the Boulder Campus of the University of Colorado during 1975-1976. All Public Services departments were asked to maintain statistics for seven representative weeks during the 1975-1976 fiscal year in order to measure the frequency of question-asking, the types of questions asked and the level of staff response. (The data gathering forms and definitions of question types are provided in Appendices A, B, C.) Answer quality was not measured.

The reasons for this study and the on-going counting of reference questions at the University of Colorado at Boulder are:

a. to demonstrate over a period of years the increase (or decrease) of work loads as pertaining to reference services provided collectively and individually by Public Services units.

b. to understand departmental staffing and training needs by who is answering what type of questions.

c. to counteract intra and extramural ignorance of what librarians do.

d. to provide supervisors with a quantifiable understanding of the reference activities within each segment of the Public Services Division.

The total volume (547,245) of questions handled by reporting departments is illustrated in Table I. The relative results in this table have been compared with the 1973* analysis and in most cases similarities of performance held up between the two studies.

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*Composite Report on Reference Questions Asked in Public Services Departments." Prepared by John Lubans, Jr., October 30, 1975. Various pages.

TABLE I

Library	1975-76 Volume Rank	1975-76 Sample	x7.4	1975-76 Annual Figure
Circulation	1	18,123		134,110
Reference	2	10,877		80,489
Reference Desk		(6,344		(46,945
Information Desk		2,948		21,815
Public Catalog Desk		1,585)		11,729)
Business	3	6,108		45,199
Art and Architecture	4	6,067		44,895
Science	5	5,950		44,030
Government Documents	6	3,759		27,816
Audio-Visual/Reserve	7	3,755		27,787
Math-Physics	8	3,573		26,440
College	9	2,917		21,585
Music	10	2,816		20,838
Education	11	2,581		19,099
Engineering	12	2,218		16,413
Interlibrary Loan	13	2,194		16,235
Earth Science	14	1,382		10,226
Microforms	15	956		7,074
Western History	16	502		3,714
Map	17	175		1,295
TOTAL:				547,245

No differentiation by type of question has been made in this Table, hence the Circulation Department ranks first with 134,110 including a large volume (ca. 59,000 of total) of circulation-type questions answered.

In addition, Table I's ranking does not consider number of staff actively involved in information service or the number of hours such service is provided and, of course, neither is the quality of the answer considered.

That over a half-million* reference transaction occurred during 1975-76 would appear to suggest a successful "marketing" of our services. Generally, the user approaches us and asks for assistance. The volume of interaction strongly suggests that many users expect to receive answers and are not fearful of library staff. This comment on the user's expectations is based on many user surveys that conclude users are unwilling to ask for assistance for several reasons, including unawareness of services, not wishing to admit ignorance, and some sense of shyness. Lacking national comparisons of reference volume, it is

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*Regarding the overall total, which is four times that of any other state-supported institution in Colorado on a per staff member basis, it is the consensus of the reporting departments that for the most part the figures are on the low side due to individuals forgetting to record transactions due to the pressure of numerous questions being handled almost simultaneously at times.

difficult to numerically rank this Library versus other universities of this size. Subjective observation has it that we are substantially ahead of most in providing reference service.

Table II, in percentages, shows the relative frequency of different types of questions asked in each reporting unit. In the Directional column, as expected and planned Circulation and the Information desks are handling 45% and 41% each in the directional category of all questions asked of them. Likely because of their location near user traffic lanes, Interlibrary Loan, College, and Education did significant amounts of answering questions of a directional nature (44%, 37% and 37%). The new building (completed January 1977 with a relocated entrance) and renovation of the old (completed February 1978) should have an effect on the frequency of this type of question, especially in Interlibrary Loan, and somewhat in Education and College because of new traffic patterns.

The Reference desk counts directional questions as only 15% of its workload which can, no doubt, be attributed to the initial screening of questions by the Information and Circulation desks. Since the Reference Desk is staffed almost exclusively by librarians, this initial screening or interception of questions benefits the library in the appropriate use of reference librarians for higher levels of questions.

The median and average for this category are both at 30%. It is difficult to imply any meaning for those units far above or far below the 30th percentile. The directional type question usually is

TABLE II

Library	Directional	Circulation	Instructional	Research
Art and Architecture	.18	.54	.16	.12
Audio-Visual/Reserve	.21	.44	.20	.15
Business	.13	.58	.20	.09
Circulation	.45	.44	.11	
College	.37	.15	.43	.05
Earth Science	.30	.33	.21	.16
Education	.37	.29	.22	.12
Engineering	.29	.39	.23	.09
Government Documents	.18	.23	.35	.24
Interlibrary Loan	.44	.48	.06	.01
Map	.32	.32	.22	.14
Math-Physics	.31	.52	.10	.07
Microforms	.23	.18	.57	.02
Music	.26	.33	.24	.17
Reference				
Reference desk	.15	.21	.45	.19
Information desk	.41	.22	.36	.01
Public Catalog desk	.30	.14	.45	.11
Science	.34	.37	.24	.05
Western History	.09	.46	.12	.33
THE MEDIAN	.30	.33	.22	.11
THE AVERAGE	.30	.39	.22	.08

a result of proximity to traffic areas, especially the main entrance or in an area in the bookstacks where there was heavy user traffic past the Interlibrary Loan office, simply because of its location. It is interesting to note that the four science branch libraries are all at or near the median for this type of question.

It is probably this type of question that is or could be affected considerably by the effective use of signs and other graphics and by assuring a convenient (to the user) location of the information service point.

The Circulation question accounts for a large proportion of questions, understandably in some units such as Interlibrary Loan, Circulation, and Audio-Visual/Reserve (each at 44%) but not so obviously in such branch units as Art and Architecture (54%), Business (58%), and Math-Physics (52%). It is hoped that confusion between what a circulation question is as compared to a reserve book transaction is no longer being made, (for which see definitions in Appendix B).

The median figure for the circulation category is 33% and 39% is the average. Any unit greatly above the median should carefully examine its circulation procedures - it makes little sense that circulation type questions (generally of a purely mechanical sort) should be taking up over half the total number of questions reported by a unit. It should be further stressed that a straight forward reserve book transaction is not a circulation question.

The Instructional answer is one of the two substantive levels of questions requiring subject expertise and knowledge in the use of a wide variety of both general and specific reference sources: dictionaries, encyclopedias, handbooks, indexes and abstracts, and many other bibliographic aids. Instructional questions were at a high in these areas: 45% in Reference; 45% at the Card Catalog desk; 57% in Microfilms (use of equipment); 43% in College and 35% in Government Documents. A level such as those reported appears desirable and even expected for these units.

Slightly over 1/5 (22%) is the median and also the average for the instructional column. This type of question has the potential for either decreasing or increasing depending on the success and stress of the libraries' instructional efforts towards better information resource use by our users. I would guess that the more aware a user is of the potential services in our libraries the more likely he or she will ask for assistance at the instructional and research levels. This is often an important achievement of our user education/instructional program; i.e., the user's becoming aware that it is not wrong to ask for help, regardless of their status or the level of the inquiry.

Research questions are the most complex and advanced questions asked of library staff. The research column reflects that this is the area of least (in quantity) activity in our service function with a median of 11% and an average of 8%. Exceptions to the median appear in Western History at 33% and Government Documents at 24%.

As with the instructional category, the asking of research type questions is stressed in our instruction activities. It is the research type of question that often results in major assistance to a student or faculty member's scholarly work. The librarian's special training and educational background has been thought for several years, to be essential in this area. Any improvement in the volume of this activity would appear to be indicative of the increasing acceptance of library information service by our users. Also, an increase for this category would suggest user satisfaction with this service.

Table III shows in percentages the volume of questions answered in each unit by type of staff: librarian, support staff, student. Also, the actual "raw" unextrapolated number of questions for each staff group is presented. This Table raises some questions as to how often librarians are involved in negotiating questions at all levels. In addtion, we need to examine the high volume of reference questions being handled by students. They answer 40% in the median for all units, with 36% of all questions asked. From a high of 100% in Maps, 79% in Art and Architecture; 70% in Business; and 59% in Engineering to a low of 10% in Reference and 29% in Circulation. My and other librarians' administrative concerns deal with the library training and supervision of these students answering such a high volume of questions (205,401 during 1975/1976) as well as our having a very real concern over the quality of the answer. If we are content with this quality of assistance are we negating the advanced training/ experience most library faculty and library staff have?

TABLE III

Library	Librarian %	Raw Number	Staff %	Raw Number	Student %	Raw Number	Raw Total	
Art and Architecture	03	191	18	1,094	79	4,780	6.067	
Audio-Visual/Reserve	16	613	32	1,185	52	1,957	3,755	
Business	5	309	25	1,551	70	4,248	6,108	
Circulation	1	129	70	12,792	29	5,202	18,123	
College	34	1,007	26	745	40	1,165	2,917	
Earth Science	34	472	30	413	36	497	1,382	
Education	12	319	52	1,349	36	913	2,581	
Engineering	10	211	31	693	59	1,314	2,218	
Government Documents	7	258	57	2,158	36	1,343	3,759	
Interlibrary Loan	11	249	89	1,945	-0-	-0-	2,194	
Map	-0-	-0-	-0-	-0-	100	175	175	
Math-Physics	8	296	44	1,581	48	1,696	3,573	
Microforms	4	34	50	483	46	439	956	
Music	20	549	40	1,127	40	1,140	2,816	
Reference								
Reference desk	74	4,704	16	987	10	653	6,344	
Public Catalog desk	100	1,585					1,585	
Information desk			100	2,948			2,948	
Science	3	177	62	3,687	35	2,086	5,950	
Western History	4	21	66	331	30	149	501	
THE MEDIAN:	10%	11,124 (82,317)	44%	35,069 (259,510)	40%	27,757 (205,401)	73,952	(547,245)
THE AVERAGE:	15%		47%		36%			

The volume of reference questions (259,510) intercepted by support staff is a positive factor. In most of our Public Services Departments, support staff working with users are experienced and well qualified to be of assistance. This group handles the largest share of reference work with an overall average of 47% of the total. Whether such a high share of the reference work load is as it should be needs to be examined; a preliminary observation might be that based on staff numbers and administrative pressures on a department head's time this work load is unavailable. However, given that, we are faced with the ongoing need to train and develop new and old staff adequately to meet the reference workload.

The median in the "librarian" column is at 10% with the overall average at 15%. Taking into account the various demands of administration, supervision and book selection in most of our single librarian units, it is not difficult to see why the overall total (82,317 questions) would be relatively less than for the figures for staff and students. However, it is unsettling to see such wide fluctuation of availability of the librarian for information service of anywhere from 3% to 34% of the total volume of questions. Even with the differences in the raw numbers for each unit, it is still a question for discussion as to how (or if) librarians with experience and subject learning can become more available for information service.

Table III-A further emphasizes the seriousness of the situation. Students answer numerous questions in <u>all</u> question categories, not just directional and circulation. One can argue that due to low levels of staffing of both faculty and staff positions in

TABLE III-A

All Libraries

Average percentage of questions answered by type of question and employee level.

	Librarian	Staff	Student
Directional	13.6	40.7	51.1
Circulation	10.5	44.6	48.8
Instructional	20.6	41.3	44.7
Research	22.6	34.3	36.6

the libraries and the long hours library units are open, it is necessary for students to assume considerable and sophisticated proportions of the question volume. This, no doubt, contributes to the situation at the University of Colorado with traditionally low staffing patterns; nevertheless, there is a need to closely examine our staffing patterns and the training and supervision of students at all hours that a library is open. Within the Public Services Division during 1977, we should strive to examine the quality of the answer provided and the establishment of a minimal training program for student assistants in reference work. Also, we need to develop alternate patterns of staffing to adequately provide for supervision of students working independently evenings and weekends in our Public Services departments.

Discussion and recommendations stemming from March 29, 1977 meeting of Public Services Librarians to discuss the March 10 draft of this report.

These quotations are from responses to the draft report and some of its findings:

> How can we expect. . .that a student can be equipped to handle the reference desk? I think any honest reference librarian would admit that it takes at least a couple years of experience, in addition to the library school training (or its equivalent), to feel really at ease and competent with a card catalog and a reference collection. Are we discrediting this training and experience in suggesting that a student is competent to replace us?

> Experience tells me that it is impossible to set a student down at a reference desk and expect him, upon instruction, to stay out of reference and research questions. He is put into a position where he is certain to be asked the entire range of questions. Not only does he not have the knowledge, skill, and experience to handle them but he does not have the judgment to know his own limitations. As I think hard about it, I must admit that if I were a student put in that same situation I would probably respond in like manner. Yet, we compound our difficulties by letting the student do the screening and determine what he will refer to us, rather than using our judgment to screen what the student might be able to handle.
>
> Joan Mason - Reference Librarian

> Student workers and staff members will continue to be the most visible library people to the public. Every effort, therefore, should be made to improve the knowledge and skills of these employees. The orientation given to new student and staff members should be thoroughly reviewed.
>
> Most importantly, student workers and staff must be instructed as to what levels and types of questions they are to attempt to respond to and precisely when the appropriate answer to a patron would be to refer the patron to the librarian. The distinction between librarian, staff member, and student worker must be emphasized to all who use the library.
>
> Steven Wecker - Business Librarian

As revealed by the tone and sense of these observations and the discussion at the meeting, there is general concern amongst the Public Services Librarians about the quality of reference service, staffing patterns, and the adequacy of training of student assistants to be able to answer, discriminate and refer questions to support staff and librarians.

It was recommended at this meeting that the following be explored by the Library Administration (the asterisk item is being worked on):

* - establishment of a training program for the library's student assistants working in information service. General consensus was that quality of student answers would very likely be questionable.

- establishment of an additional job level (at higher salary) for students solely responsible for libraries on weekends and evenings. This would recognize responsibility and retain experienced students, rather than losing them to higher paying non-library jobs.

- creation of a series of half-time positions (i.e. graduate assistantships) with subject expertise on T.A. salary level with sole function of reference service on evenings and weekends. (Will require extensive training and supervision by department head.)

- consideration be given to converting all student assistant positions in favor of fulltime staff (seen as politically impossible); but perhaps conversion of several student assistant positions to fulltime staff could be achieved.

JL:lam

APPENDIX A

Week of _____ 19 __
Month/Day

UNIVERSITY OF COLORADO LIBRARIES - PUBLIC SERVICES DIVISION

_____ Library Report on Reference Questions

Status of Individual Reporting
/__/ Librarian /__/ Staff
/__/ Student /__/ Other

Directions: 1. Enter in one mark (/) for each question (see over for definition of type of question).
2. Summarize and return to Library Administration Office upon completion of week.

Type of Question	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Totals
Directional								
Circulation								
Instructional								
Research								
18								
Totals								19

APPENDIX B

DEFINITION OF TYPE OF QUESTION

Directional:

Includes questions answered about the location of specific people or places; questions which do not require the interpretation of library service and do not include even the simplest tools.

Some examples of Directional questions:

1. "Where's the pencil sharpener?"
2. "Where can I find Mrs. _____?" or "Where is the Administration Office?"
3. "Where's the Business Library?"

Circulation:

A. Includes negotiating requests for materials inaccessible to the user: on Reserve, in Ready Reference or in offices, files, etc. Note that the user does not have enough information to ask for the item by name or some other positive way and requires that the library staff member question the user to identify the item the user really wants. (Do not record in this category routine reserve book requests or other requests which require no other action than locating the item and handing it to the user.)

B. Includes questions which require the consulting of an internal file not open to the public, such as the Kardex, process file, shelf list, circulation file, bindery file, etc., concerning a specifically requested library resource.

C. Includes questions which require an answer in terms of the library rules.

Some examples of Circulation questions:

1. "Do you have Prof. _____'s book on reserve?"
2. "Is the almanac behind the desk?"
3. "Can I take out this periodical?"
4. "Will you trace (recall) this book for me?"
5. "Can I take this to Xerox?"
6. "Can you put this book on reserve for me?"
7. "Where do I return books?"
8. "I got this notice of a fine. . ."
9. "Will you order . . .? It's not in the card catalog?"

Instructional:

Questions which require teaching the use of a common tool in one's own department, i.e., SBC, indexes, catalogs, the card catalog, etc. This includes instruction in the use of AV equipment, microreaders, or the Locator in CD. (When not used in an instructional way, e.g. when answering a telephone query, the Locator should be recorded in the Circulation box).

Some examples of Instructional questions:

1. "I have a title but no author; how do I find the book?"
2. "How do I find (name of magazine)?"
3. "I need articles on Watergate."
4. "How do I use the microfilm machine?"
5. "I've never used a copying machine before."

Research:

More complicated than an instructional question, answering the Research question should include the use of more than one tool. The question will lead to the use of lesser known as well as more specialized tools.

Some examples of Research questions:

1. "I have to do a paper on the Black Hole theory."
2. "My term paper is on participatory management."
3. "I'm doing a biography of B.F. Skinner."

Please note: Referral questions may fit into any of the four basic types above, and should be classified according to the type of answer required, e.g.:

Directional: You give directions to the user to find the location referred to by the Public Catalog or the SBC.

Instructional: You advise the client to go to another department, because you know that the general material sought is located there.

Research: You cite one or more specific tools and send the client to the place they can be found.

Circulation: You tell the user where to return his books or where to get information on circulation policies.

APPENDIX C

_____ Library Report on Reference Questions

Week of _____

	Tue	Wed	Thur	Fri	Sat	Sun	Mon	Libn	Staff	Stud	TOTAL
Directional											
Circulation											
Instructional											
Research											
Libn											
Staff											
Stud											
TOTAL											

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10-7-75